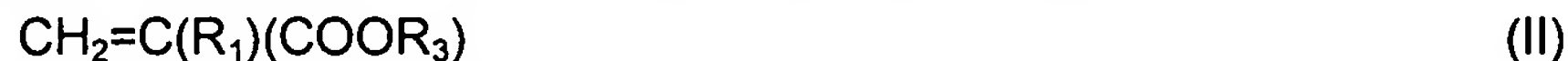


## IN THE CLAIMS

Claim 1 (**currently amended**). A method for producing copolymeric polyacrylate pressure-sensitive adhesives, in which a monomer mixture comprising acrylic acid and/or methacrylic acid and/or derivatives thereof is subjected to a free-radical polymerization, ~~characterized in that~~ **wherein**, based on the monomer mixture, 0.05% to 25% by weight of acrylated or methacrylated nitroxide derivatives of the general formula



is used, where  $\text{R}_1 = \text{H}$  or  $\text{CH}_3$  and  $\text{R}_3$  is a nitroxide derivative,

~~or in that~~ **wherein** a polyacrylate is reacted with a nitroxide derivative to give a nitroxide-modified polyacrylate corresponding to one obtained in accordance with the first alternative.

Claim 2 (**currently amended**). The method of claim 1, ~~characterized by~~ **comprising** free-radical polymerization of at least the following constituents:

- (A) acrylic acid and/or methacrylic acid and/or derivatives thereof according to the formula



where  $\text{R}_1 = \text{H}$  or  $\text{CH}_3$  and  $\text{R}_2 =$  an alkyl chain having 2-20 carbon atoms, in a fraction of 45% to 99.95% by weight,

- (B) acrylated or methacrylated nitroxide derivatives of the general formula

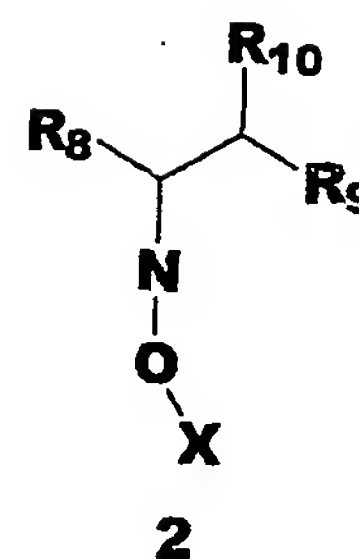
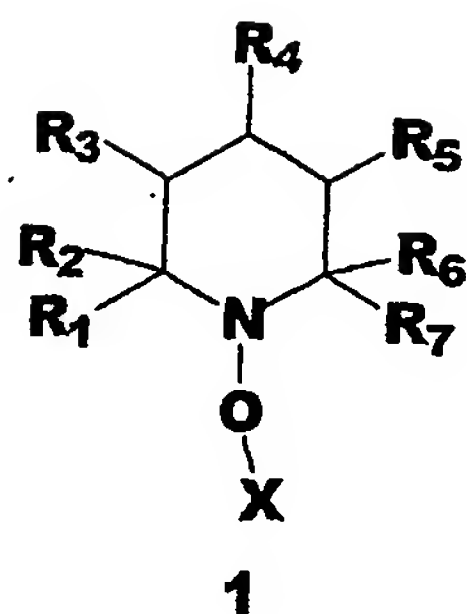


where  $\text{R}_1 = \text{H}$  or  $\text{CH}_3$  and  $\text{R}_3$  is a nitroxide derivative, in a fraction of 0.05% to 25% by weight.

Claim 3 (**currently amended**). The method of claim ~~1 or~~ 2, ~~characterized in that~~ **wherein** the polymerization is additionally carried out with

- (C) at least one vinyl compound having functional groups, or a mixture thereof, in a fraction of 0% to 30% by weight, based on the monomer mixture.

Claim 4 (**currently amended**). The method of ~~any one of claims 1 to 3, characterized in that~~ **claim 1, wherein**, as nitroxide derivative, a compound ~~is used~~ which ~~may be~~ **is** represented by one of the following general formulae **is used**:



$R_1$ - $R_9$  = alkyl or aryl or further functional groups

Claim 5 (currently amended). The method of ~~any one of claims 1 to 4,~~ ~~characterized in that~~ claim 3, wherein the vinyl compound is selected from the group consisting of vinyl acetate, acrylamides, and photoinitiators functionalized with double bond.

Claim 6 (currently amended). The method of ~~any one of claims 1 to 5,~~ ~~characterized in that~~ claim 1, wherein the polymerization takes place in solution, ~~preferably in organic solvents or water or a mixture of organic solvents and water, the solvent preferably comprising high-boiling aromatics, especially toluene or xylene.~~

Claim 7 (currently amended). The method of ~~any one of claims 1 to 6,~~ ~~characterized in that~~ claim 1, wherein, in a further step, at least one further monomer is added to the nitroxide-modified polyacrylate and, after an increase in temperature to at least 100°C, a nitroxide-controlled free-radical polymerization, initiated by the cleavage of the nitroxide derivative and formation of free radicals along the polyacrylate backbone, is carried out to give a comb block polymer.

Claim 8 (currently amended). The method of claim 7, ~~characterized in that~~ wherein the nitroxide-modified polyacrylate prepared in solution is admixed with the further monomer and thereafter is subjected to a concentration step at elevated temperature, thereby initiating the free-radical polymerization with the further monomer to give the comb block polymer.

Claim 9 (currently amended). The method of claim 7, ~~characterized in that~~ wherein, following an optional concentration step ~~where appropriate,~~ the nitroxide-modified polyacrylate is admixed with the further monomer and subsequently processed further in a hotmelt process, in which the free-radical polymerization with the further monomer is initiated to give the comb block polymer.

Claim 10 (currently amended). The method of ~~any one of claims claim 7, to 9,~~  
~~characterized in that~~ wherein the further monomer is styrene, a styrene derivative, an  
acrylate or a methacrylate.

Claim 11 (currently amended). The method of claim 10, ~~characterized in that~~  
wherein the molecular weight of the individual polystyrene blocks is adjusted to between  
500 and 50 000 g/mol, ~~preferably between 4000 and 30 000 g/mol.~~

Claim 12 (currently amended). The method of ~~any one of claims 7 to 11,~~  
~~characterized in that~~ claim 7, wherein the temperature of the polyacrylate composition for  
copolymerization with the further monomer is increased to 130°C.

Claim 13 (currently amended). A nitroxide-modified polyacrylate ~~obtainable by a~~  
~~method of any one of claims 1 to 12~~ obtained by the method of claim 1.

Claim 14 (currently amended). The nitroxide-modified polyacrylate of claim 13,  
~~characterized by~~ having an average molecular weight of between 500,000 and  
2,000,000 g/mol ( $M_w$ ), ~~preferably between 600 000 and 1 000 000 g/mol ( $M_w$ ).~~

Claim 15 (currently amended). A comb block polymer having pressure-sensitive  
adhesion properties, ~~obtainable~~ obtained by polymerizational attachment of blocks onto a  
the nitroxide-modified polyacrylate of claim 13 ~~or 14 by a method of any one of claims 7~~  
~~to 12.~~

Claim 16 (currently amended). ~~The use of the comb block polymer of claim 15 for~~  
~~producing pressure-sensitive~~ Pressure-sensitive adhesive articles comprising the  
comb block copolymer of claim 15.

Claim 17 (currently amended). ~~The use of claim 16 for~~ A method for producing  
pressure-sensitive adhesive tapes or sheets by which comprises coating one or both sides  
of a backing with a pressure-sensitive adhesive ~~which comprises or consists~~ comprising  
or consisting of the comb block polymer of claim 15.

Claim 18 (currently amended). The ~~use~~ pressure-sensitive adhesive articles of  
claim 16 ~~or 17~~, wherein the comb block polymer, before or during processing to give the  
pressure-sensitive adhesive articles, has been blended with crosslinkers, resins, plasticizers,  
fillers or other additives or auxiliaries.

Claim 19 (**new**). The method of claim 17, wherein the comb block polymer, before or during processing to give the pressure-sensitive adhesive articles, has been blended with crosslinkers, resins, plasticizers, fillers or other additives or auxiliaries.